Feral Swine Eradication and Control Pilot Program Assessments of Extent and Nature of Damages

Instructions to Data Collectors

The data you will be collecting as part of this effort are of critical importance to the future investment of the United States Congress in the operation of feral swine control and eradication efforts. Please read these instructions **carefully**, and fill out data forms accurately. When in doubt, ask a question! When you're not sure about including ancillary data, add a note or a separate page. As you have items or categories reported not provided for you, record the data, and consult with me on adding an item.

The instructions below will take you through each part of the data form, and should explain the types of questions you should ask. This is a good reference to review regularly, in addition to your training on data collection.

All area questions are in Acres! All Value Questions are in US Dollars!

1. Data Sheet Meta Data

   Metadata is one of the most important things we have. Do this on every sheet, regardless of duplication. If sheets get misplaced, out of order, or other calamities befall them, these data will set us straight!

   1. Sheet Header
      o Record the Date of Collection, Your Name, and Which Project (e.g. TX1; OK2)
   2. Contact Column
      o Record the name and contact information of property landowner
   3. Location Column
      o Note the county, year, property ID (you assign in order by project), and take a GPS point at property HQ in **decimal degrees.** Be sure your GPS is in the correct datum (WGS 84 Projection).
   4. Check Column
      o Is this person a WS Cooperator?
      o Do we have confirmed property boundaries?
      o Do we already have a shapefile from TNRIS? (Check County)

- o Did they engage in DIY (Trap-Loan Program) Control?

2. Damage Data Collection

The primary goal of this project is to collect data on damages experienced by landowners and agricultural producers. There are a lot of details to collect here, but all of them are important.

Remember, you will be asking the same landowners these questions every year, so it is very important to be clear about the year for which you are asking, as you will be in the **new** year when asking about last year!

1. Crop Damages
    o Ask landowners:
        a. the type of crops they planted **(and if irrigated)**
            i. For example: "Corn(Ir)" or "Corn"
            ii. Crops may include:
                1. Corn
                2. Wheat
                3. Sorghum
                4. Cotton
                5. Sunflowers
                6. Peanuts
                7. Canola
                8. Oats
                9. Hay (Specify Type)
                10. Alfalfa
        b. The dollar value per acre in yields.
        c. how many acres were planted,
        d. how many acres lost, and
    o Remember to ask about hay and sod as a crop, too.
    o Ask if and how many acres were replanted after loss.
        a. Be sure to ask for **total** cost of replanting including contract time, fuel, seed, etc. If custom planting was used, capture this cost in notes.
        b. We want to capture their personal time increase in the "Operational Increase" section below, not here.
    o Ask if how many acres of loss were avoided due to control efforts, WS or DIY.

2. Conversion Acres

- o Ask landowners if there are any crops they <u>**used**</u> to plant, but no longer do **due exclusively to feral swine damage.**
- o **If yes:**
  - a. Ask what was the original crop,
  - b. how many acres they converted,
  - c. what the new crop is, and
  - d. what year they converted.
  - e. If there is any cost to conversion (new implements to purchase, seed, etc), indicate this.
    - i. Costs should not include personal time, only contracted labor. Include personal time below in "Operational Increases."

3. Livestock Damages
   - o Ask landowners if they have had damages or losses to livestock.
     - a. Indicate the livestock species, type (breeding male, sterile male, etc), and how many in their herd/flock.
     - b. Ask how many they lost of these.
     - c. Ask the value per head per type. Further inquire about status. If it was a producing female, how many **more** offspring should they have had from her? Indicate this in notes.
     - d. Did they incur vet costs from livestock damage? Treating injuries, vaccinations, etc. Record the total cost per livestock species (not head) per year.
     - e. Ask if they perceive losses avoided as a result of control, either DIY or WS.

4. Surface Damages
   - o Ask if feral swine did damages to the ground on their property.
     - a. How many acres?
     - b. What was the cover type?
       - i. Types may include:
         1. Native rangeland
         2. Improved pasture
         3. Riparian Area
         4. Wetland
         5. Hay field

6. Cropland

c. If they restored it, what did it cost to restore?

    i. Costs should include equipment, fuel, supplies, hired labor, etc.

    ii. Costs should not include personal time, only contracted labor. Include personal time below in "Operational Increases."

d. If they perceive loss avoided as a result of control, either DIY or WS.

5. Property Damages

    o We need to ask if they experienced loss of property. This list should cover MOST items, but if others arise, record them, then consult with me on entering them.

    a. Ask:

        i. What did it cost to buy?

        ii. What was the labor to install it?

        iii. How old was it?

        iv. How much did they have to spend to repair/replace, **including hired labor, but not their own time (we'll capture that, below)**.

        v. Did they perceive losses avoided as a result of control, either DIY or WS.

6. Stored Commodity Damages

    o Ask landowners if they lost any stored commodities for use on their own property or others. These may include livestock feed, forages, and minerals, produced crops post-harvest, or even seed for crop planting. Record any commodity not provided below, then consult with me on entering it.

    a. Ask:

        i. What type of commodity

            1. These may include:

                a. Livestock Feed

                b. Livestock Forages

                c. Livestock Mineral

                d. Stored Crops

                e. Planting Seed

                f. Fertilizer

                g. Wildlife Feeds

        ii. How much was lost (indicate units!)

1. Bushels and tons are the preferred units.
2. If working with baled forages, please inquire as to average weight of bale, and provide tons of hay, rather than bales.

iii. What did these cost?

iv. How much did it cost to replace? (If applicable)

v. Was it for self-produced for self-use?

vi. Did they perceive losses avoided as a result of control, either DIY or WS?

3. Landowner Control Effort Datasheet

It is important that we fully understand the extent to which landowners have attempted to engage in their own control, or their understanding of Wildlife Services' control efforts on their property. If the landowners are not doing any control, and WS has not previously worked here, responses may be limited.

1. Personal Damage Management Efforts
   o If landowners indicated that they conduct control efforts themselves, we want to determine their cost and efficiency by control type.
   o Ask:
       a. Their cost by legal control type (including supplies)
       b. How much time they spent by type per month. **You may need to prompt them to think through this by week, and multiply it.**
       c. How many pigs did they remove?

2. Wildlife Services Support
   o We want to know if landowners are already receiving support from WS, and their perception of those works.
   o Ask:
       a. What kind of support.
           i. These may include:
               1. Trapping
               2. Ground Shooting
               3. Aerial Shooting
       b. How many hours **they think** WS has spent on property.
       c. What their assign as the value of these efforts.
           i. This is best asked as what was the value of the resources WS protected.
       d. How many pigs do they think WS took?

3. Feral Swine and Wildlife Revenues
   o Many landowners derive benefits, and perhaps some of their income from revenues from feral swine and wildlife. We want to capture this. **Remember:** This is a sensitive question for many landowners, so we want to be careful here.

- o Ask:
    - a. From which species did they benefit?
    - b. What was their hunting lease revenue?
        - i. If no income, indicate P/U for personal use.
    - c. Did they make money trapping/selling? If so, how much?
    - d. Were there other revenues? (wildlife watching, etc?)

4. Operational Increase Due to Feral Swine
    - o We know that for many landowners, an increase in operational efforts (normal property maintenance tasks) are an increasing problem. We want to capture these, and record the **increase** above the non-feral swine baseline cost. We have provided general categories and actions.
    - o When you have others reported, record them and consult with me on entering them.
    - o Time should be collected as **hours per month.**
    - o Ask:
        - a. What type of activity:
            - i. These may include:
                1. Crops
                2. Livestock
                3. Property
                4. Surface Damage Restoration
                5. Crop Conversion
        - b. What was the activity?
            - i. These can include:
                1. Crops:
                    - a. Prep/Plant
                    - b. Replant
                    - c. Harvest
                2. Conversion
                    - a. Soil Movement
                    - b. Soil Fertilization/Adjustments
                3. Livestock:
                    - a. Inspect/ "check"
                    - b. Vaccinate
                    - c. Gather
                    - d. Protect
                4. Property

a.   Fence Repair
b.   Road Repair
5.   Surface Land Restoration
a.   Soil Movement
b.   Plantings
c.   Fencing
c.   How much **extra** time did it take compared to without feral swine. (in hours per month).
d.   How much **extra** fuel did it take?
e.   What was the **extra** material cost above the non-feral swine baseline.

5.   Human Dimensions Questions
o   Ask landowners the following questions, and record answers as presented below.

o   These questions may be conducted at any time during the interaction, and could be useful as "icebreaker" or "closing up."

1)   In your view, how has the feral swine population changed (if at all) over the past three years in your county?
a.   Substantially decreased
b.   Somewhat decreased
c.   No change
d.   Somewhat increased
e.   Substantially increased
d.   Unsure

2)   In your view, what is the ideal feral swine population in your **state**?
a.   No pigs (completely eradicated)
b.   Small population, but not on my property
c.   Small population, including on my property
d.   Current population level in my state (no change)
e.   Larger population than presently exists in my state